

**DEPARTMENT OF TRANSPORTATION****DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
690 Walnut Ave.St. 150  
Vallejo, CA 94592-1133  
(707) 649-5453  
(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-011152**Date Inspected:** 05-Jan-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai**CWI Name:** ZPMC and ABF**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Tower**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector Mr. Wai Pau, was present during the times noted above for observations relative to the work being performed.

**Tower yard**

South tower lift #1 bearing stiffeners: - Caltrans QA Inspector observed seven ZPMC welders in process FCAW process on exterior bearing stiffeners for skin A, B and C of south tower lift #1. The weld is designed PJP weld use ZPMC joint detail WT10 with welded in 3G position. The welds ID are SSD1-SA15-DF-14, SSD1-SA18-24, SSD1-SA18-33, SSD1-SA17-F/G-79, SSD1-SA17-F/G-67, SSD1-SA17-F/G-55 and SSD1-SA17-F/G-53. The bearing stiffeners weld joint has been pre heat prior welding. The FCAW was monitored and recorded by ZPMC and ABF QC inspector. Based on Caltrans QAI observations, no discrepancies were noted.

East tower lift #1 bearing stiffeners: - Caltrans QA Inspector observed eight ZPMC welders in process FCAW process on exterior bearing stiffeners for skin A, B, C and D of east tower lift #1. The weld is designed PJP weld use ZPMC joint detail WT10 with welded in 3G position. The welds ID are ESD1-SA294-F/G-65, ESD1-SA294-F/G-50, ESD1-SA284-F/G-62, ESD1-SA294F/G-53, ESD1-SA296-B/E-22, ESD1-SA296-B/E-25, ESD1-SA237-D/F-42 and ESD1-SA233-25. The bearing stiffeners weld joint has been pre heat prior welding. The FCAW was monitored and recorded by ZPMC and ABF QC inspector. Based on Caltrans QAI observations, no discrepancies were noted.

West tower lift #1:- Caltrans QA Inspector observed six ZPMC welders in process FCAW process on interior bearing stiffeners for skin B and C of west tower lift #1. The weld is designed PJP weld use ZPMC joint detail

# WELDING INSPECTION REPORT

( Continued Page 2 of 3 )

WT10 with welded in 3G position. The welds ID are WSD1-SA279-4/6/12/15, WSD1-SA294-F/G-20/22. The bearing stiffeners weld joint has been pre heat prior welding. The FCAW was monitored and recorded by ZPMC and ABF QC inspector. Based on Caltrans QAI observations, no discrepancies were noted.

Top of tower lift #1:- Caltrans QA Inspector observed six ZPMC installed two tower struts on the connection areas of east tower to south tower and west tower to north tower. The tower struts connection areas are located at elevation 47.6m. A connection plate and numerous bolts secured the tower struts after in place the connection areas. Based on Caltrans QAI observations, no discrepancies were noted.

North tower lift #1:- Caltrans QA Inspector observed four ZPMC workers in process of automatic Oxyfuel Gas Cutting (OFC) cutting on nine exterior bottom stiffeners. The exterior bottom stiffeners located at bottom of skin plate C for north tower lift #1. The nine pieces exterior bottom stiffeners had 30 mm over length. However, the last 10mm to 20mm length near the skin plate C haven't enough room for use automatic cutting machine. The workers use hand OFC cutting to removed exceed metal. Based on Caltrans QAI observations, no discrepancies were noted.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

## Summary of Conversations:

As notes within report above.



---

## WELDING INSPECTION REPORT

( Continued Page 3 of 3 )

---

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Serge Sinevod 13482570045 , who represents the Office of Structural Materials for your project.

---

<b>Inspected By:</b>	Pau, Wai	Quality Assurance Inspector
<b>Reviewed By:</b>	Clifford, William	QA Reviewer

---